

ABSTRACT

A substrate is robotically picked up at a station and transported to a measuring station to measure the distance to a reference. The substrate is aligned to a robot before measurement. The measured substrate is then transported to a pharmaceutical or diagnostic powder/grain deposition station where the powder/grains are controllably deposited on the substrate to predetermined thicknesses over a plurality of powder/grain collection zones. The deposited powder/grains are then measured to determine the thickness and area covered by the deposited powder/grains at each collection zone. The substrate is then transported to a lamination station and each collection zone of powder/grains is welded to a cover substrate. The system remembers which collection zones are out of specification so that they can be later selectively discarded.